

4. (Amended) Process according to claim 1, characterized in that the nucleic acid is of natural character, modified, such as substituted with functional groups, non-modified or artificially generated.

5. (Amended) Process according to claim 1, characterized in that the substrate is a single crystal surface or an amorphous surface.

7. (Amended) Process according to claim 1, characterized in that microwave generated oxygen plasma producing atomic oxygen or a mixture of gases containing oxygen is used.

8. (Amended) Process according to claim 1, characterized in that high-voltage generated and/or UV-light emitting source generated oxygen plasma producing atomic oxygen or a mixture of gases containing oxygen is used.

9. (Amended) Process according to claim 1, characterized in that the substrate is treated with atomic oxygen plasma for about 0.1 to 10 minutes.

10. (Amended) Process according to claim 1, characterized in that the atomic oxygen plasma treatment is carried out using an oxygen pressure in the range of about 0.1 to 1.0 mbar, preferably 0.2 to 0.8 mbar.

11. (Amended) Process according to claim 1, characterized in that the nucleic acid to be immobilized on the substrate is present in an aqueous solution.

13. (Amended) Immobilized nucleic acid obtainable by a process according to claim 1.